

## Academic Listening Comprehension:

### Does the Sum of the Parts Make Up the Whole?

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#### ABSTRACT

A listening test administered to eighty-five non-native speaker students demonstrated that: (a) a significant relationship exists between global academic listening comprehension (ALC) and a subset of four microskills--inferring the meaning of unfamiliar vocabulary, and recognizing the respective functions of referential devices, conjunctive devices, and transitional devices; (b) each microskill tested is related to global ALC at  $p < .001$  (correlations ranged between .377 and .477); (c) common factors are involved in the skills of recognizing the functions of markers of cohesion and markers of coherence; (d) the relationship between global ALC and the ability to identify the main idea in short listening passages is significant but not particularly strong ( $r = .462$ ). These findings imply that it might be useful to include microskill exercises in materials used for teaching and testing ALC.

Research on the listening comprehension (LC) of both native and non-native speakers is divided concerning whether or not there may be a subset of microskills significantly related to global LC. One body of research maintains that LC is a cognitive

skill and is "indivisible" as a "linguistic function" (Weaver 1972). This view of LC contends that the only subskills which might conceivably be identified are on the 'macro' level, and would include the ability to identify main ideas, to recall details, and to make inferences (Bateman et al. 1964). Most materials designed to test or develop the listening comprehension of non-native speaker (NNS) students at college or university appear to concur with this view and contain exercises concentrating only on these macro level skills (e.g. Test of English as a Foreign Language [TOEFL], Plaister Auding Test [PAT], Sims and Peterson 1981, Dunkel and Pialorsi 1982).

A second body of research counters the view that listening comprehension is an indivisible linguistic function. This research, conducted for the most part in academic environments, suggests that it may indeed be possible to identify a subset of 'enabling' skills, or 'microskills', related both to the macro level skills mentioned above, and to global LC and ALC. This subset of microskills includes the ability to infer the meaning of unfamiliar vocabulary, and recognize the function of 'discourse markers' of cohesion and coherence. Research suggesting the significance of microskills is of two kinds:

(1) Studies attempting to identify and taxonomize factors and subskills (both macro and micro in level) related to LC and ALC. These taxonomies were compiled on the basis of theoretical models, and/or intuition (e.g. Nichols 1949, Brown 1951, Barker 1972, Richards 1983). Two LC tests for native speakers, the Brown-Carlson Listening Test and the listening portion of the Sequential Tests of Educational Progress (STEP), include measures

of some of the subskills taxonomized by Nichols (1949) and Brown (1951). These two tests, however, appear to be of questionable validity (Lorge 1959, Petrie 1964).

(2) Investigations into the ALC problems encountered by non-native speaker (NNS) students at college and university. Data for these studies were obtained by means of (a) questionnaire surveys and interviews (e.g. Morrison 1974, Lebauer 1982, Yuan 1982), and/or (b) discourse analysis of transcripts of lectures and seminars (e.g. Wijasuriya 1971, Candlin and Murphy 1976, Montgomery 1977, Stanley 1978, Dudley-Evans and Johns 1980, and Lebauer 1982). Discourse analysis shows that academic discourse is intellectually demanding, involves specialized register, and is frequently delivered in the form of lengthy monologues. The taxonomies of ALC difficulties encountered by NNS students suggests that specialized microskills may be required to comprehend lectures and seminars.

The possibility that a subset of microskills may be significantly related to ALC implies that it would be useful to include exercises concentrating on these microskills in diagnostic tests and pedagogical materials concerned with ALC. Unfortunately, however, although the research described above gives useful indications as to the identity of microskills related to ALC, the non-empirical nature of most of the methodology adopted leaves any findings open to doubt, and thus inconclusive. This inconclusiveness necessarily casts doubt on the validity of materials which do contain microskill components (e.g. Yates 1972, Young and Fitzgerald 1982, Lebauer 1984).

This paper describes an attempt to empirically determine the relationship between global ALC and a subset of microskills. The microskills selected for the study were chosen on the basis of the findings of investigations into the ALC difficulties encountered by NNS students at British and American universities.

#### ALC Difficulties of Non-native Speaker Students

James (1975) makes a distinction between the ability to perceive and recognize individual lexical items ("decoding") and the ability to understand sentence-level and text-level discourse ("comprehension"). James (1975:90) suggests that the most important reasons for a "miscoding" (words wrongly perceived) or a "nil-coding" (inability to perceive the message at all) are "... the twin factors of English stress-timed rhythm and arbitrary lexical stress." Another crucial factor affecting the perception of individual lexical items is rate of speech (Montgomery 1977, Stanley 1978), which affects both stress and phonology.

Comprehension problems refer to difficulties in the macro level skill of identifying and following the speaker's main ideas. These shortcomings appear to concentrate in three areas: (1) Familiarity with culture-specific knowledge (e.g. James 1975, Lebauer 1982, Yuan 1982). The NNS student, used to a different educational style and unfamiliar with the native speaker lecturer's culture-specific interpretations of the world and its phenomena, may misinterpret or fail to understand certain information and assignments presented during the course of a



lecture. Problems caused by culture-specific schema may be compounded by confusion caused by "contrastive rhetoric" (Kaplan 1966)--culture-specific ways of organizing and presenting information. Unfamiliar discourse patterns may cause the NNS to mistake the focus of the discourse, and fail to follow the logic and conclusions of a lecture delivered in the second language.

(2) Understanding how cohesion and coherence are effected within oral discourse (e.g. Wijasuriya 1971, Morrison 1974, James 1975, Candlin and Murphy 1976, Yuan 1982, Lebauer 1982). Wijasuriya (1971), analyzed a large corpus of lecture transcripts to reveal the essential role of "logical connectors" and "discourse markers" in lecture discourse. Inability to recognize the function of markers of cohesion and coherence may prevent the NNS from comprehending relationships both on the level of individual sentences, and on the level of the text as a whole. Halliday and Hasan (1976) list five types of cohesive devices--referential, conjunctive, lexical, elliptical, and substitutive devices. Referential devices include demonstrative pronouns, personal pronouns, the 'dummy' subject *it*, comparative references, and possessive adjectives. Referential devices may be endophoric (referring to elements within the text) or exophoric (referring to elements outside the text); they may be anaphoric (referring to previous discourse), or catphoric (referring to future discourse). Candlin and Murphy (1976:22) suggest that anaphoric reference may prove more difficult for NNS students than cataphoric reference as it places a load on short term memory and expects them to link up different parts of the text. Conjunctive cohesion is divided into additives, adversatives, causatives, and

temporal markers. Candlin and Murphy (1976:26) stress the importance of the "signalling role" of causatives and adversatives. Causatives, such as so, therefore, or then, frequently mark concluding moves in discourse, and "signal that what follows will be items of information that the learner will need to retain." Adversatives such as on the contrary or but also signal important information "...requiring attention to what follows, and the rejection of what preceded." The remaining types of cohesive device are considered by Candlin and Murphy to be less significant in terms of problems they may cause NNS listeners. Lexical cohesion includes paraphrase, repetition, synonyms and hyponyms. Substitutive cohesion involves using a substitute for a noun, verb (e.g. an auxiliary), or clause (e.g. so, this fact). On the level of textual coherence, Lebauer (1982) noted three major speech acts in her analysis of transcripts and videotapes of lectures. These were "topic initiation", "topic continuation", and "topic break." Lebauer analyzed the lectures in order to identify cues as to the goals of the lectures. She reported that the speaker would direct attention to these goals using a combination of various types of 'emphasis marker'. Such markers included lexical markers (e.g. "...a third point...", "...now this is astonishing..."), repeated syntactic forms ("...whales have it, seals have it..."), highlighting transformations (clefting, pseudo-clefting, movement rules), the use of rhetorical questions, and hand and body position.

(3) Dealing with unfamiliar lexical items (e.g. Morrison 1974,

Stanley 1978, Yuan 1982, Harper et al. 1983). Colloquial expressions, such as idioms, seem to cause the NNS particular problems. As James (1975) points out, lexical limitations may impede the NNS listener unnecessarily. Many overseas students expect to have to understand every word in order to comprehend a text, and thus lose concentration, or simply give up, when unfamiliar words and phrases disorient them.

The ALC difficulties encountered by NNS students indicate that it might be possible to identify a number of microskills required to comprehend ALC. The significance of these microskills needs, however, to be empirically determined.

#### Purpose of the Study

The purpose of this study was to obtain empirical data to investigate the relationship of a subset of microskills to ALC. The Test of Academic Listening Comprehension (TALC) was constructed to test the following hypothesis:

Competence in a subset of skills at the micro level will predict academic listening proficiency at the global level.

#### Method

##### Subjects

The subjects in the study included eighty-five non-native speakers of English (NNSs) enrolled in English language classes on the campus of the University of Hawaii at Manoa, Honolulu. The subjects had been in the United States for lengths of time varying from one month to eleven years, and for an average of nineteen months. Ages of the subjects ranged from eighteen to forty-three, with an average age of twenty-five. The native

languages of the subjects were mostly Asian, and included Chinese, Japanese, Korean, Vietnamese, Thai, Cambodian, Nepalese, French, Spanish, German, Swedish, and Farsi. Listening ability ranged between scores of 18 and 52 out of 70, with an average score of 34, on the listening portion of the TOEFL.

#### The Instrument

The test was divided into two separate parts. Part I included fifty items, and comprised four sections, each measuring a separate microskill. Part II included thirty items, and comprised two sections, measuring, respectively, the ability to identify main ideas, and global ALC. Testees read and listened to separate instructions and sample items for each section. All items were multiple choice, offering four choices, the correct answer and three distractors.

Listening material for the TALC was selected from three live lectures, one presented to non-native speaker students in the ELI, and two presented to native-speaker undergraduate students. The lectures were transcribed, and, in order to maintain the characteristics of spoken language, the test followed the original text as closely as possible. Material from two lectures was used for Part I. These lectures discussed, respectively, various theories of the origins of language, and the character of Charles Darwin. Material from only one lecture was used in Part II. This lecture discussed the relationship between acculturation and second language learning. These lecture topics were unbiased toward either the arts or the humanities. The lectures represented both 'formal' and 'informal' registers, as defined by



Morrison (1974). In order to familiarize students with the themes of the listening material and with proper names, the test included brief introductions to each lecture. The final form of the TALC included revisions made to two pilot forms.

The TALC was recorded on audio tape in a sound-proofed recording studio by a male Briton (the author) and two female Americans. Average rates of speech for the script-readers were, respectively, 145, 165, and 133 words per minute (w.p.m.). These rates were slightly slower than the average rate of conversational speech, 160-190 w.p.m., suggested by Rivers (1981), and slightly faster than those of the original lecturers who spoke at 132, 158, and 105 w.p.m. respectively.

Part I: The four microskills measured in Part I were chosen as they featured prominently both in assessments of the ALC difficulties encountered by NNS students, and in theoretical descriptions of the microskills which appear to be involved in ALC. Sample items for Part I are given in Appendix A.

The microskill measured in Section 1 was the ability to infer the meaning of unfamiliar vocabulary. The twenty vocabulary items, eleven of which were idioms, were selected on the basis of their infrequent usage. Testees heard a word or phrase followed by a short selection containing that word or phrase. Testees had to infer the meaning of the words and phrases from contextual or morphemic clues.

The microskill measured in Section 2 was the ability to identify the function of referential devices in context. The section included ten referential devices---eight anaphoric and two

cataphoric devices. Testees heard a phrase followed by a short listening passage containing the phrase. The phrase was printed in the test booklet, with a referential device underlined. Testees had to choose the correct referent from the list of choices.

The microskill measured in Section 3 was the ability to identify the function of conjunctive devices in context. The ten items included four additives, four adversatives, and two causatives. A conjunctive device had been removed from each listening passage and replaced by a tone. Testees had to select the appropriate conjunctive device from the choices.

The microskill tested in Section 4 was the ability to identify the function of transitional devices. Testees heard ten short selections, and had to decide whether the selection cued (a) the introduction to the lecture, (b) the conclusion to the lecture, (c) the presentation of an explanation or details, or (d) the beginning of a new topic or idea.

Part II: Part II, Section 1 of the TALC contained ten items, measuring testees' ability to identify and comprehend the main idea in one minute passages.

Part II, Section 2 measured general comprehension of two consecutive five and a half minute passages taken from the beginning of the lecture on acculturation and language learning. Each passage was followed by a set of ten comprehension questions. These items measured the ability to identify and recall main ideas, significant details and definitions, the ability to make inferences concerning the information presented,

and the ability to assess the attitude of the lecturer toward her/his material. Testees were allowed to take notes if they wished.

#### Administration

The final form of the TALC was administered in the first month of the Spring semester of 1984 in a language laboratory. For administrative reasons, all subjects took Part II five days after Part I.

#### Analysis of the Data

The data obtained in this study were analyzed in order to obtain three sets of statistics. The first set included the internal reliability, standard deviation, standard error of measurement, and mean scores of the TALC. Reliability coefficients were obtained using the Kuder-Richardson 21 formula (KR 21). The second set of statistics included intercorrelations between the various subtests, calculated to test the original hypothesis, and answer related questions. To test the hypothesis that competence in a subset of skills at the micro level will predict academic listening proficiency at the global level, Part I (microskills) was correlated with Part II, Section 2 (global ALC). Research questions related to the hypothesis were as follows:

(a) To what degree is each of the four microskills tested in Part I related to global ALC? To provide an indirect answer to question (a), correlations were calculated between the individual subtests in Part I, and Part II, Section 2 (global ALC).

(b) To what degree can the four microskills tested in Part I be isolated as being discrete? To provide an indirect answer to

question (b), intercorrelations were calculated between the four microskill subtests in Part I.

(c) To what degree is the macro level skill of identifying and recalling main ideas related to global ALC? To provide an indirect answer to question (c), a correlation was calculated between Part II, Section 1 (identification and recall of main ideas), and Part II, Section 2 (global ALC).

The third set of statistics involved correlating the TALC with two other LC tests for NNSs, namely the listening portion of the Test of English as Foreign Language (TOEFL [LC]), and the Plaister Auding Test (PAT). Scores on the TOEFL are used for admission purposes at the University of Hawaii, and the PAT is used for placing NNS students in ELI listening comprehension classes.

### Results

Kuder-Richardson 21 reliability coefficients, standard errors of measurement, standard deviations, and mean scores for the TALC and each of its two independent parts are shown in Table 1.

-----Table 1 here -----

Table 2 presents the intercorrelations between the different parts and sections of the TALC.

----- Table 2 here -----

Correlations between the TALC and the listening comprehension portion of the TOEFL (TOEFL LC), and between the TALC and the Plaister Auding Test (PAT) are shown in Table 3.



Sixty of the subjects took the TOEFL (LC), and thirty-nine of the subjects took the PAT.

----- Table 3 here -----

## Discussion

### Reliability and Item Analysis

Reliability coefficients were .795 for the whole test, .682 for Part I, and .676 for Part II. These coefficients were reasonably high in view of the low number of items in each of the two parts (fifty and thirty respectively), and the low number of subjects (eighty-five).

### Correlations

Intercorrelations: Intercorrelations were calculated in order to determine the significance for the relationship between the various skills measured by the TALC.

The data obtained from the TALC confirm, to some extent, the hypothesis that competence in a subset of skills at the micro level will predict academic listening proficiency at the global level. The correlation between Part I and Part II, Section 2 ( $r = .650$ ,  $p < .001$ ) suggests that competence in a subset of discrete skills at the micro level is indeed significantly related to academic listening proficiency at the global level. The correlation suggests that a measure of the four skills tested would, within a specified confidence interval, predict 42.25% of proficiency in global ALC.

While data from the present study suggest that proficient ALC is, to a degree, dependent on a combination of microskills, it is important to note that each of the four sections in Part I

correlated significantly ( $p < .001$ ) both with the combined sections of Part II, and with each section of Part II separately. This suggests that each individual microskill is significantly related to global ALC, and to the macro level skill of identifying main ideas. Correlations between the microskill subtests and Part II, Section 2 (global ALC) ranged between .377 and .432. The similarity of these correlations suggests that the significance of the relationship between global ALC and each microskill is approximately equal. The fact that each microskill appears to be independently related to global ALC implies that it may be possible to identify, and isolate for the purposes of both theoretical discussion and pedagogical materials, a number of discrete microskills related to ALC. This possibility is supported, to an extent, by the low level of most of the intercorrelations obtained between the microskill subtests. These correlations are shown in Table 4.

----- Table 4 here -----

Significant correlations were found between Section 3 (conjunctive devices) and Section 4 (transitional devices) ( $r = .404, p < .001$ ), and also between Section 2 (referential devices) and Section 3 (conjunctive devices) ( $r = .326, p < .01$ ). This suggests that some similar factors may be involved in recognizing the function of markers of coherence and cohesion in discourse. The lower correlations involving Section 1 indicate that the the skill of inferring the meaning of unfamiliar vocabulary from contextual and morphemic clues may be a more discrete skill. These correlations may indicate that the

skill of inferring the meaning of unfamiliar vocabulary is a different skill, perhaps more of a cognitive skill, than the other microskills measured.

The correlation between Part II, Section 1 (main ideas) and Part II, Section 2 (global ALC) was significant, but not particularly high ( $r = .462$ ,  $p < .001$ ). The relatively low level of the correlation may be explained by the different lengths of the listening passages in the two sections--fifty-seven seconds, on average, and five minutes thirty-four seconds, respectively. It may well be the case that while the ability to identify and recall main ideas is crucial in global ALC, there are factors involved in comprehending extended passages of spoken academic discourse which are significantly different from those involved in 'gisting' shorter passages for a single main idea. One such factor is presumably the more significant role that memory plays in global LC. It is also possible that comprehension of the longer passages makes different demands upon each microskill than does the task of identifying the main idea in shorter passages. This last suggestion is supported by the considerable difference in the correlation coefficients obtained between Part I and Part II, Section 1 (main ideas) ( $r = .454$ ), and between Part I and Part II, Section 2 (global ALC) ( $r = .650$ ). These figures imply that the four microskills tested in Part I have a more significant relationship with the task of comprehending extended discourse than they do with the task of gisting shorter passages for a single main idea.

Correlations with Criterion Measures: Correlations between the

TALC and both the TOEFL (LC) and the PAT were significant ( $p < .001$ ). This suggests a degree of criterion validity for the TALC as a test of general listening comprehension. However, the correlations were not especially high, and this calls into question the specific nature of the skills being measured by each of these tests.

Correlations between the TALC and the TOEFL (LC) were .508 (TALC total), .453 (Part I), and .454 (Part II). The TOEFL (LC) is a measure of capacity to comprehend short passages of non-specialized spoken discourse, and the fact that the correlation with Part II of the TALC is no higher suggests that specific skills may be required to comprehend passages of spoken discourse which are longer than those in the TOEFL (LC), and which are academic in nature.

The correlations between the TALC and the PAT were .550 (TALC total), .540 (Part I), and .500 (Part II). These correlations were significant ( $p < .001$ ), but low in view of the fact that the objective of both tests was to measure comprehension of spoken academic discourse. As in the case of the TOEFL (LC), the low correlation between the PAT and Part II of the TALC may be explained by the fact that the listening passages of the PAT are short (approximately twenty seconds, on average). This explanation would lend weight to the argument that comprehension of extended passages of oral academic discourse involves specialized skills which are different from those required to comprehend shorter passages, such as those presented in the TOEFL (LC) and the PAT.

Limitations of the Study: The reliability of the test instrument



(.795) was high enough to lend credibility to implications arising from the data. There were, however, certain limitations related to the methodology.

One limitation was that global ALC involves factors other than the subset of four microskills included in the present study. Non-empirical research (Candlin and Murphy 1976, Richards 1983) suggests that these factors are likely to include four other microskills, viz., (1) the ability to recognize the function of stress in oral academic discourse, (2) the ability to recognize the function of intonation in oral academic discourse, (3) the ability to 'decode' individual lexical items spoken at various speeds, and (4) the ability to recognize the meaning conveyed by facial expressions and kinesics. The scope of the study did not permit examining the relationship of these skills to ALC.

A second possible limitation of the study was that the audiotape presentation denied subjects the visual clues to meaning, such as facial expression, gesture, and written work, that normally accompany a lecture. It was decided not to use a videotaped presentation as this medium might have proved to be distracting during the shorter listening passages used for Part I and Part II, Section 1.

A third limitation of the study concerns the length of listening passages used in Part II, Section 2. The two five and a half minute passages included many of the features associated with lectures, such as anaphoric and cataphoric reference, conjunctive and transitional devices, and discussion of several

different topics and concepts. However, no empirical research is available to confirm that the length of these passages was indeed sufficient to be representative of full length lectures.

Suggestions for Further Research: The findings and limitations of this study imply that there exist several promising possibilities for future research on the relationship between microskills and global ALC:

(1) One implication of the results obtained in this study is that it might be possible to raise the level of students' ALC proficiency by improving their competence in the individual microskills. This, in turn, suggests that it would be useful to develop ALC teaching materials which focus on the microskills identified as being significantly related to ALC, and to investigate the benefits of using them in ALC courses.

(2) This study identified four microskills as being significantly related to ALC. Identifying the other factors, and the other microskills in particular, which are significantly related to ALC, would increase theoretical understanding of ALC, and would also have practical implications for the testing and teaching of ALC.

(3) This study indicated that a measure of competence in the microskills may predict 42.25% of global ALC proficiency. This suggests that it would be useful to research the possibility of including, for diagnostic purposes, microskill exercises in measures of ALC proficiency.

(4) The data suggests that gisting short listening passages for the main idea, on the one hand, and comprehending longer passages, on the other, involve different factors. The

implication of this finding is that tests and teaching materials concerned with ALC proficiency should include passages that bring into operation the same skills as those required to comprehend full-length lectures. Research related to this finding could be undertaken in two phases. First, it would be necessary to empirically test the hypothesis that these two tasks involve different subskills. Then, if the hypothesis were confirmed, it would be useful to investigate how long a listening passage needs to be in order to be representative of a full length lecture.

#### Summary

This study involved an empirical investigation into the relationship between global ALC and a subset of microskills. It was found that:

(1) A significant relationship appears to exist between global level academic listening comprehension and a subset of four microskills ( $r = .650$ ,  $p < .001$ ). These microskills are (a) the ability to infer the meaning of unfamiliar vocabulary from contextual and morphemic clues; (b) the ability to recognize the function of referential devices; (c) the ability to recognize the function of conjunctive devices; (d) the ability to recognize the function of transitional devices.

(2) Each of the four microskills described above appears to be significantly related to global level ALC. Correlations ranged between .377 and .437.

(3) Certain factors may be common to the ability to recognize the function of markers of cohesion and coherence in oral academic discourse. The ability to infer the meaning of

unfamiliar vocabulary from contextual and morphemic clues appears to be a relatively independent skill.

(4) The relationship between global ALC and the ability to identify the main idea in short listening passages is significant but not particularly strong ( $r = .462$ ,  $p < .001$ ).

These findings imply that it might be useful to include microskill exercises in materials used for teaching and testing academic listening comprehension.



TABLE 1  
THE TALC: RELIABILITY, STANDARD DEVIATION,  
STANDARD ERROR OF MEASUREMENT,  
MEAN SCORES

	Total (n=80)	Part I (n=50)	Part II (n=30)
Reliability	.795	.682	.616
Standard Error of Measurement	1.95	3.40	2.63
Standard Deviation	9.52	6.03	4.26
Mean Score	46.41 (58.01%)	29.13 (58.26%)	17.28 (57.60%)

TABLE 2  
INTERCORRELATIONS FOR THE TALC

	I	II	I,1	I,2	I,3	I,4	II,1	II,2
TALC	—	— ***	.230 *	.246 *	.246 *	.281 **	.143 ***	.303 *
I	—	.705	.230 ***	.261 ***	.257 ***	.292 ***	.454 *	.650 **
II	—	—	.462	.477 **	.468	.470	.245 *	.339 ***
I,1				.300	.190 **	.131 *	.261 ***	.457 ***
I,2					.326	.272 ***	.380 ***	.408 ***
I,3						.404	.396 ***	.377 ***
I,4							.340	.422 ***
II,1								.462
II,2								—

n = 85

\* significant at  $p < .05$

\*\* significant at  $p < .01$

\*\*\* significant at  $p < .001$

I -- microskills

II -- macroskills

global ALC

I,1 -- unfamiliar vocabulary

I,2 -- referential devices

I,3 -- conjunctive devices

I,4 -- transitional devices

II,1 -- main ideas

II,2 -- global ALC

TABLE 3

CORRELATIONS OF THE TALC WITH THE TOEFL (LC) AND THE PAT

	TALC	TALC I	TALC II	PAT	TOEFL (LC)
TOEFL (LC) (n = 60)	.508	.453	.454	.656	--
PAT (n = 39)	.550	.540	.500	--	.656

TALC I -- Microskills

TALC II -- Macroskills/global ALC

TABLE 4  
INTERCORRELATIONS IN THE TALC, PART I

	I,1/I,2	I,1/I,3	I,1/I,4	I,2/I,3	I,2/I,4	I,3/I,4
(r)	.300	.190	.131	.326	.272	.404
(p)	<.01	not sig	not sig	<.01	<.05	<.001

(r)--Pearson Product-moment correlation  
(p)--level of significance



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Appendix A: Sample Items from Part I of the TALC

Section 1 (Inferring the meaning of unfamiliar vocabulary)

didn't hog the credit for

A scientist named Russell Wallace had come up with a theory very similar to Darwin's, and Darwin insisted that the theory be presented jointly, by the two of them. He did not hog the credit for the theory, and this was very generous of him.

- a) didn't claim all the recognition for
- b) didn't pay money for
- c) didn't give up his rights to
- d) didn't share the honor for

Section 2 (Recognizing the function of referential devices)

Now, some of them do have rather nice little names

A lot of people have developed theories about how language developed, and I won't go into all of the theories. But I will give you an idea about what some of them are. Now, some of them do have rather nice little names.

- a) people
- b) theories
- c) languages
- d) ideas

Section 3 (Recognizing the function of conjunctive devices)

O.K., so we've said that there are several theories which try to explain how language developed. \_\_\_\_\_, there is a problem. You see, most of these theories do not explain why language developed.

- a) because
- b) however
- c) consequently
- d) in other words

#### Section 4 (Recognizing the function of transitional devices)

Right. We've said that Darwin's book really was revolutionary, but what exactly was it about this book that made it so revolutionary? Well, there were a number of things.

- a) the introduction to the lecture
- b) the conclusion to the lecture
- c) the presentation of an explanation or details
- d) the beginning of a new topic or idea

### Notes

1. I should like to thank Charles Mason, Craig Chaudron, Jack Richards, Deborah Gordon, and Kathy Rulon for their invaluable help with this study, and for their helpful comments on an earlier draft of this paper.

2. The Test of Academic Listening Comprehension has now been adapted to a fifty-minute test, and is suitable for administration as a placement test or as a classroom test.